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DEPARTMENT OF ENERGY

Request for Information: Clean Energy Investment Center

AGENCY: Department of Energy (DOE).

ACTION: Request for Information (RFI).

SUMMARY: The U.S. Department of Energy's (DOE or the Department) Clean Energy Investment Center (CEIC), a component of the Office of Technology Transitions, is issuing this Request for Information (RFI) to gain public input on its efforts to expand and facilitate public access to the Department's resources and to mobilize investment in U.S. clean energy technology. The CEIC also is seeking information through this RFI to further define the scope and priorities of the services it provides to the general public, specifically to mission-driven investors, as well as the investment community more broadly. The information collected may be used for internal CEIC planning and decision-making to ensure that future activities maximize public benefit while advancing the Administration's goals for leading the world in building a competitive, clean energy economy; securing America's energy future; reducing carbon pollution; and creating domestic jobs.

DATES: Written comments and information are requested on or before March 31, 2016.

ADDRESSES: Comments must be submitted electronically to CEIC@hq.doe.gov. *Responses must be provided as a Microsoft Word (.doc) or (.docx) attachment to the email with no more than 3 pages in length for each category section listed in the RFI. Only electronic responses will be accepted.*

RESPONSE GUIDANCE: Please identify your answers by responding to a specific question or topic if possible. Respondents may answer as many or as few questions as they wish.

The CEIC will not respond to individual submissions or publish a public compendium of responses. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.

Respondents are requested to provide the following information at the start of their response to this RFI:

- Company / institution name;
- Company / institution contact;
- Contact's address, phone number, and e-mail address.

FOR FURTHER INFORMATION CONTACT: Requests for additional information may be submitted electronically to Marcos Gonzales Harsha at **CEIC@hq.doe.gov** or by contacting the Department of Energy at 202-586-5000.

SUPPLEMENTARY INFORMATION:

BACKGROUND: In February 2015, the White House launched the Clean Energy Investment Initiative to catalyze expanded private sector investment in climate change solutions, including innovative technologies with breakthrough potential to reduce carbon pollution. To support this initiative, the Department of Energy formally launched the DOE Clean Energy Investment Center (CEIC) in January 2016, with the mandate to make the Department's resources more readily available and understandable to the public and to create pathways that enable expanded access to the unique technical expertise and analytical capabilities within DOE's programs, sites, and 17 national laboratories located across the country. The CEIC's goal is to advance private, mission-oriented investment in clean energy technologies that address the present gap in U.S.

clean tech investment. The CEIC is also charged with enhancing the availability of the Department's resources to investors and the public.

To advance this mission, DOE supports a variety of commercialization and deployment activities in partnership with its national laboratories, universities, businesses, and nonprofit organizations. Existing programs include the Loan Programs Office, Advanced Research Projects Agency-Energy, Small Business Vouchers, Small Business Innovation Research/Small Business Technology Transfer, Lab Corps, Gateway for Accelerated Innovation in Nuclear Technologies, and the Technology Commercialization Fund. For more information on existing programs, visit: <http://energy.gov/technologytransitions/us-department-energys-clean-energy-investment-center>.

However, recent investment trends are cause for some concern. According to Bloomberg New Energy Finance, global clean energy investment has grown significantly over the last 10 years but slowed and even plateaued starting in 2009. Meanwhile, early-stage cleantech investment (a primary driver of innovation) has steadily fallen in recent years. The constrained level of investment in clean energy in recent years represents a significant hurdle for commercialization and deployment of emerging technologies with game-changing potential. The CEIC's role is to enable domestic investment with global impact. This role can take many forms and the next section discusses strategic areas where the CEIC can contribute.

Fresh impetus for designing a robust CEIC arrived on December 12, 2015, when an historic climate agreement was adopted by 195 nations at the United Nations climate summit in Paris, France. The goals and principles framed in that agreement, as well as the accompanying “intended nationally determined contributions” that defined targets for emission reductions and clean energy investment for each participating nation, will only be achievable with substantial private capital investment. This fact was explicitly recognized through the announcement of a public-private Mission Innovation partnership, in which 20 nations announced their intent to double public clean energy research and development (R&D) spending over the next five years.

These announcements and commitments present a tremendous opportunity for forward-looking investors, and the CEIC is working to utilize DOE’s considerable resources and expertise to support the investor community as it gathers information, develops investment principles and policies, and identifies clean energy technology investment opportunities. The questions posed in this RFI primarily address the specific services and tools the CEIC can develop to maximize value of DOE engagement with the investment community and support clean energy investment decision making by the public.

PURPOSE: The purpose of this RFI is to solicit feedback from industry, academia, research laboratories, government agencies, and other stakeholders to assist the Office of Technology Transitions with further defining the scope and priorities of the services the CEIC will provide. This is solely a request for information. The CEIC is not accepting applications at this time.

DISCLAIMER AND IMPORTANT NOTES: This RFI is not a Funding Opportunity Announcement (FOA) or request for proposals (RFP) for a procurement contract; therefore, the CEIC is not accepting applications or proposals at this time. The CEIC may develop programs in the future and solicit contracts based on or related to the content and responses to this RFI. However, CEIC may also elect not to incorporate responses into its program and tool design. There is no guarantee that an RFP or FOA will be issued as a result of this RFI. Responding to this RFI does not provide any advantage or disadvantage to potential applicants if the CEIC chooses to issue a FOA or solicit a contract related to the subject matter.

Any information obtained through this RFI is intended to be used by the government on a non-attribution basis for planning and strategy development. The CEIC will review and consider all responses as it formulates program strategies related to the subjects within this request. In accordance with Federal Acquisition Regulations, 48 CFR 15.201(e), responses to this notice are not offers and cannot be accepted by the government to form a binding contract. The CEIC will not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that DOE is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted. Responses to this RFI do not bind the CEIC to any further actions related to this topic.

PROPRIETARY INFORMATION: Because information received in response to this RFI may be used to structure future programs and/or otherwise be made available to the public, **respondents must NOT include any information in their responses that might be considered business sensitive, proprietary, or otherwise confidential.** Responses must be submitted with the understanding that their contents may be publicly disclosed and, in the event of a public disclosure, DOE will NOT notify respondents or provide any opportunity to revise or redact submitted information.

REVIEW BY FEDERAL AND NON-FEDERAL PERSONNEL: Federal employees are subject to the non-disclosure requirements of a criminal statute, the Trade Secrets Act, 18 USC 1905. The government may seek the advice of qualified non-federal personnel. The government may also use non-federal personnel to conduct routine, non-discretionary administrative activities. The respondents, by submitting their response(s), consent to DOE providing their response(s) to non-federal parties. Non-federal parties given access to responses must be subject to an appropriate obligation of confidentiality prior to being given the access. Submissions may be reviewed by support contractors and private consultants.

REQUEST FOR INFORMATION CATEGORIES AND QUESTIONS:

CATEGORY 1: Information Access

Background/Context

The Department already has numerous programs designed to help U.S. energy innovation stakeholders cross the technological and financial “valleys of death” to bring new technology solutions to the market. However, there may be opportunities to expand public awareness of these programs raise the profile of individual projects/companies with investors by providing

information about existing awardees supported by DOE and, potentially, about unsuccessful applicants who agree to have their information shared.

This approach is reflective of other agencies that have relevant programs and connections to the clean energy investment space, including activities at the Departments of Agriculture and Transportation, the Environmental Protection Agency, the Overseas Private Investment Corporation and the Export-Import Bank. While the CEIC will not be in a position to represent the work of these organizations, the Center may still serve as a helpful conduit to non-DOE programs.

Information Requested

The following questions may guide, but should not restrict, responses:

1. What type of information would be most useful to investors and organizations serving investors (information on individual awardees, market analysis, DOE-funded project and patent listings, indication of project results and/or others)? Specificity is welcomed.
2. Would a single internet location that provides a searchable web-based interface containing information about active programs (and, potentially, awardees and applicants) be a high-value tool? Are there any examples of similar tools/databases that you consider to be useful? How would such a tool benefit the market in general? What elements would need to be included to ensure that this is a useful tool?
3. Are there any current DOE or other federal programs that help innovators bring technologies to market (financial or technical assistance)? If so, how and where do investors learn about it/them?
4. Is information on DOE open funding opportunity announcements, requests for proposals, and lists of awardees readily available and accessible in a useful format?

5. Currently, most DOE offices and programs have active websites. Are they useful to investors and provide necessary information?

CATEGORY 2: Technical Energy Expertise

Background/Context

DOE's national laboratory system maintains vital scientific and technological capabilities in support of U.S. national security, scientific discovery, and economic competitiveness. The laboratories offer unique opportunities for the private sector to engage in collaborative research and development, licensing agreements, user facilities, and to obtain technical assistance. The recent establishment of DOE's Office of Technology Transitions has heightened the Department's focus on improving coordination and effectiveness of the national laboratories in executing their technology transfer missions. As part of the suite of services that the CEIC may offer, the Department is considering development of an online portal that would connect public inquiries with relevant experts within DOE's programs and at its 17 national laboratories.

The technical expertise resident at the national labs is complemented by program knowledge within DOE program offices. The Department recently released the 2015 Quadrennial Technology Review, a study that examines the most promising research, development, demonstration, and deployment opportunities across energy technologies to effectively address the nation's energy needs, and the Department conducts ongoing reviews on the state of technologies.

Though the Department is not in a position to recommend specific investments to private investors, the experts at the Department's laboratories and programs are uniquely positioned to provide insight into the latest clean energy technology discoveries and emerging deployment trends.

Information Requested

The following questions may guide, but should not restrict, responses:

1. Is sufficient information available to investors about the clean energy technology landscape?
 - If not, what are key areas of research, analysis, or information sharing that would most contribute to better understanding the clean energy technology landscape and markets?
 - Are there any existing modes or channels of communication that the Department could use to reach a larger audience?
 - Would case studies about project/company development made possible through DOE funding be useful?
2. DOE undertakes market analysis and mapping of technology development pathways. However, are there other key areas of research and analysis that would lead to a better understanding of challenge areas, broad technical risk, and the current state of clean energy technologies that DOE could conduct?
3. How can the CEIC and the Department better match existing national laboratory resources and expertise with the needs of investors?
4. Are clean energy investors aware of the resources/expertise available at the national laboratories? Do investors know how to access the people and capabilities around the national laboratory complex? If so, do investors reach out for information and technical assistance?
5. Do investors view DOE program and national laboratory employees as subject matter experts? Have investors ever tried to obtain information directly from DOE or any of the 17 laboratories? If so, are there best practices or lessons learned that can be shared?

6. Would a searchable web-based interface that facilitates connections between investors and technical experts at DOE's programs and national laboratories be a high-value tool? Do investors have any examples of similar tools/databases that may be useful? If implemented correctly, could such a tool lead to more and/or improved clean energy investment deals? What questions remain that would need to be answered to determine the usefulness of the tool?
7. What publications/organizations/methods do investors currently consult or regard as possessing expertise in specialized information on clean energy technology? As applicable, please specify sources used for technical review, market review, etc.

CATEGORY 3: Stakeholder Engagement and Communications

Background/Context

Many organizations outside of the government are already working to provide information exchanges regarding clean energy technologies and partnering on shared objectives. However, the Department provides a powerful convening and communication forum for facilitated engagement between the government and the investment community. The joint public-private Mission Innovation announcement, during which 28 high-net-worth individuals from 10 countries announced their intent to commit billions of dollars to clean energy R&D through an initiative of the Breakthrough Energy Coalition, is an example of the importance of a direct public role in spurring activity. The CEIC is able to build on this convening ability, and events such as Innovation Interface sessions can be resources for sharing information about the Department's program offices. In this section, the CEIC is interested in learning more about where clean energy investors gather regionally and nationally, and how and where they prefer to receive information.

Information Requested

The following questions may guide, but should not restrict, responses:

1. Do clean energy investors see value in participating in a structured visit to DOE and/or any of its facilities/laboratories? What kind of information would be most useful to obtain/learn about during such a visit?
2. Are you aware of/do you represent any organization(s) in the clean energy field that would be able to provide useful information to the CEIC team?

What events present the best opportunities for the CEIC to engage in valuable dialogue/interactions, inform the general public about the clean energy landscape, and/or connect with new or prospective investors? In which events, conferences, or settings would you like to see CEIC participation?

3. What kinds of communication channels are most useful/effective? What is the best way for investors and the public to receive information and updates?
4. Do investors obtain most of your information from academic articles, data aggregators, analytical and advisory firms, or other sources? Where do investors search for information pertaining to innovations, early stage research, or clean energy investment?
5. Are there any other successful federal or non-federal models for engagement and communication that should be adopted by the CEIC?

CATEGORY 4: Open

Background/Context

The CEIC recognizes that there may be tools and services other than those discussed in this RFI that may be useful to investors. This category serves as an open call for suggestions on

how to effectively align the CEIC and its programs with the needs of its customers (the public, investors, and industry) and overarching Administration goals.

Information Requested

The following questions may guide, but should not restrict, responses:

1. What are the greatest concerns with investing in the clean energy technology space?

What sort of information/assistance would provide greater comfort with this category?

2. In general, how can the CEIC (and the federal government more broadly) most effectively help to catalyze further clean energy investment? In particular, how can CEIC most effectively advance the following goals:

- a. Unlock new sources of capital and foster more effective investment models to scale innovative clean energy companies;
- b. Facilitate match-making between early-stage companies and potential investors and customers;
- c. Support the development of innovative marketplaces for early-stage investment, including crowd-funding platforms;
- d. Enhance activity and engagement with corporate investors/strategic investors, including utilities;
- e. Catalyze the formation of long-term, patient capital funds for energy technology development;
- f. Leverage philanthropic capital through program-related investments, mission-related investments, and other mechanisms;
- g. Encourage more clean energy venture dollars focused on U.S.-based companies with high potential for domestic economic benefit; and

- h. Leverage existing programs (e.g., SBIR) to be of best use to the clean energy investment community.
- 3. Is there any other information, other approaches, or other data that would be useful to investors?
- 4. Are there any other tools that would be useful to investors or key stakeholders that were not discussed above?
- 5. What are the greatest challenges when it comes to investing in clean energy?
- 6. Is there any information about investment principles and/or investment policy statements as it pertains to clean energy investments that could be shared with other investors and the public?
- 7. What DOE (or other state/federal) finance and commercialization programs are available, and should anything about them be changed to enhance their utility?

Issued in Washington, DC on February 25, 2016.

Dr. Sanjiv Malhotra

Director, Clean Energy Investment Center